

## IN THE CLAIMS

Please amend the claims as follows:

1. (CURRENTLY AMENDED) An analog front end apparatus, comprising:
  - a) a transmit block coupled to transmit discrete multitone modulated upstream data to a subscriber line, wherein the transmit block digitally filters the upstream data;
  - b) a hybrid network coupled to the subscriber line and the transmit block; and
  - c) a receive block coupled to the hybrid for receiving discrete multitone modulated downstream data from the subscriber line, wherein the transmit block, hybrid network, and receive block reside within a same integrated circuit package.
2. (ORIGINAL) The apparatus of claim 1 wherein the hybrid is a first order hybrid network.
3. (ORIGINAL) The apparatus of claim 1 wherein the hybrid is tunable.
4. (ORIGINAL) The apparatus of claim 1 wherein the hybrid is DC isolated from the transmit and receive blocks of the analog front end.

5. (ORIGINAL) The apparatus of claim 1 wherein the transmit block further comprises:

- i) a first interpolator coupled to interpolate the upstream data from a first clock rate to a second clock rate greater than the first clock rate;
- ii) a power spectral density shaping filter coupled to shape the power spectrum of the interpolated upstream data; and
- iii) a second interpolator coupled to interpolate the shaped signal to a third clock rate greater than the second clock rate.

6. (ORIGINAL) The apparatus of claim 1 wherein the transmit block, hybrid network, and receive block are fabricated on a same integrated substrate to form a complementary metal oxide semiconductor (CMOS) integrated circuit.

7. (ORIGINAL) A method comprising the steps of:

- a) receiving a discrete multitone modulated upstream data signal at a first clock rate,  $c1$ ;
  - b) interpolating the upstream signal to a second clock rate  $c2 > c1$ .
  - c) processing the interpolated signal through a power shaping power spectral density shaping filter;
  - d) interpolating the power shaped signal to a third clock rate  $c3 > c2$ ;
- and
- e) converting the twice interpolated signal to an analog signal.

8. (ORIGINAL) The method of claim 7 further comprising the step of pre-processing the received upstream data signal to substantially eliminate even images.

9. (ORIGINAL) The method of claim 5 wherein  $c2 = 1.104$  MHz.

10. (ORIGINAL) The method of claim 5 wherein  $c3 = 35.328$  MHz.

11. (WITHDRAWN) A method comprising the steps of:

- a) passing a composite signal containing discrete multitone modulated upstream and downstream data signals through a hybrid to extract the downstream data signal;
- b) filtering the composite signal through a high pass filter having a corner frequency,  $f1$ ;
- c) filtering the high pass filtered signal through a low pass filter having a corner frequency  $f2 > f1$ ; and
- d) converting the twice filtered downstream data signal to a digital signal.

12. (WITHDRAWN) The method of claim 11 further comprising the steps of:

- e) decimating the digital signal from a first rate  $c1$  to a second rate  $c2$ , wherein  $c2 < c1$ ;
- f) filtering the decimated signal with an anti-aliasing low pass filter;
- g) decimating the anti-aliased signal to a third rate  $c3$ ; and

h) filtering the twice decimated signal with second high pass filter.

13. (WITHDRAWN) The method of claim 12 wherein  $c2 = 8.836$  MHz.

14. (WITHDRAWN) The method of claim 12 wherein  $c3 = 2.208$  MHz.